

AUTHOR INDEX OF VOLUME 80*

Alziary de Roquefort, T., see Farcy, A. (1-3) 337-346
Andreassen, Ø., see Wasberg, C.E. (1-3) 459-465

Babuška, I. and M. Suri, The p - and h - p version of the finite element method, An overview (1-3) 5-26
Babuška, I., B. Guo and E.P. Stephan, The h - p version of the boundary element method with geometric mesh on polygonal domains (1-3) 319-325
Barenghi, C.F., A spectral method for time modulated Taylor-Couette flow (1-3) 223-227
Bernardi, C., G. Coppoletta, V. Girault and Y. Maday, Spectral methods for the Stokes problem in stream-function formulation (1-3) 229-236
Bontoux, P., see Chaouche, A. (1-3) 237-244
Bressan, N. and D. Pavoni, Truncation versus mapping in the spectral approximation to the Korteweg-De Vries equation (1-3) 443-450

Chaouche, A., A. Randriamampianina and P. Bontoux, A collocation method based on the influence matrix technique for Navier-Stokes problems in annular domains (1-3) 237-244
Chinosi, C., G. Sacchi and T. Scapolla, A hierachic family of conforming finite elements for the solution of plate bending problems (1-3) 327-336
Cloot, A., see Weideman, J.A.C. (1-3) 467-481
Cohen, G. and P. Joly, Fourth order schemes for the heterogeneous acoustics equation (1-3) 397-407
Coppoletta, G., see Bernardi, C. (1-3) 229-236
Coulard, O., D. Funaro and O. Kavian, Laguerre spectral approximation of elliptic problems in exterior domains (1-3) 451-458

Dahlburg, R.B. and J.M. Picone, Pseudospectral simulation of compressible magnetohydrodynamic turbulence (1-3) 409-416
De Frutos, J., T. Ortega and J.M. Sanz-Serna, A Hamiltonian explicit algorithm with spectral accuracy for the 'good' Boussinesq system (1-3) 417-423
Desideri, J.A., see Guillard, H. (1-3) 305-312
Deville, M.O., Chebyshev collocation solutions of flow problems (1-3) 27-37
Deville, M.O., see Francken, P. (1-3) 295-304
Don, W.-S. and D. Gottlieb, Spectral simulation of an unsteady compressible flow past a circular cylinder (1-3) 39-58

* The issue number is given in front of the page numbers.

Donat, R. and S. Osher, Propagation of error into regions of smoothness for non-linear approximations to hyperbolic equations (1-3) 59-64

Farcy, A. and T. Alziary de Roquefort, Pseudo-spectral multi-domain method for incompressible viscous flow computation (1-3) 337-346

Fischer, P.F., Analysis and application of a parallel spectral element method for the solution of the Navier-Stokes equations (1-3) 483-491

Francken, P., M.O. Deville and E.H. Mund, On the spectrum of the iteration operator associated to the finite element preconditioning of Chebyshev collocation calculations (1-3) 295-304

Frölich, J. and R. Peyret, Calculations of non-Boussinesq convection by a pseudospectral method (1-3) 425-433

Funaro, D., see Couland, O. (1-3) 451-458

Gastaldi, F., A. Quarteroni and G. Sacchi Landriani, Coupling of two-dimensional hyperbolic and elliptic equations (1-3) 347-354

Gauthier, S., A semi-implicit collocation method: Application to two-dimensional compressible convection (1-3) 435-442

Girault, V., see Bernardi, C. (1-3) 229-236

Gottlieb, D., see Don, W.-S. (1-3) 39-58

Guillard, H. and J.A. Desideri, Iterative methods with spectral preconditioning for elliptic equations (1-3) 305-312

Guo, B., see Babuška, I. (1-3) 319-325

Heinrichs, W., Algebraic spectral multigrid methods (1-3) 281-286

Hirsh, R.S., see Ku, H.C. (1-3) 381-388

Ho, L.-W., Y. Maday, A.T. Patera and E.M. Rønquist, A high-order Lagrangian-decoupling method for the incompressible Navier-Stokes equations (1-3) 65-90

Ho, L.-W. and A.T. Patera, A Legendre spectral element method for simulation of unsteady incompressible viscous free-surface flows (1-3) 355-366

Jackson, E., see She, Z.-S. (1-3) 173-183

Jauberteau, F., C. Rosier and R. Temam, A nonlinear Galerkin method for the Navier-Stokes equations (1-3) 245-260

Joly, P., see Cohen, G. (1-3) 397-407

Kamel, A., see Sguazzero, P. (1-3) 165-172

Karniadakis, G.E., Spectral element-Fourier methods for incompressible turbulent flows (1-3) 367-380

Kavian, O., see Coulaud, O. (1-3) 451-458

Kindelan, M., see Sguazzero, P. (1-3) 165-172

Ku, H.C., T.D. Taylor and R.S. Hirsh, Pseudospectral matrix element methods for flow in complex geometry (1-3) 381-388

Le Quéré, P. and J. Pecheux, A three-dimensional pseudo-spectral algorithm for the computation of convection in a rotating annulus (1 - 3) 261 - 271

Maday, Y. and E.M. Rønquist, Optimal error analysis of spectral methods with emphasis on non-constant coefficients and deformed geometries (1 - 3) 91 - 115

Maday, Y., see Bernardi, C. (1 - 3) 229 - 236

Maday, Y., see Ho, L.-W. (1 - 3) 65 - 90

Mandel, J., Iterative solvers by substructuring for the p -version finite element method (1 - 3) 117 - 128

Mund, E.H., see Francken, P. (1 - 3) 295 - 304

Muñoz, R., Theoretical analysis of some spectral multigrid methods (1 - 3) 287 - 294

Orszag, S.A., see She, Z.-S. (1 - 3) 173 - 183

Ortega, T., see De Frutos, J. (1 - 3) 417 - 423

Osher, S., see Donat, R. (1 - 3) 59 - 64

Patera, A.T., see Ho, L.-W. (1 - 3) 65 - 90

Patera, A.T., see Ho, L.-W. (1 - 3) 355 - 366

Pavoni, D., see Bressan, N. (1 - 3) 443 - 450

Pecheux, J., see Le Quéré, P. (1 - 3) 261 - 271

Pelz, R.B., Pseudospectral methods on massively parallel computers (1 - 3) 493 - 503

Peyret, R., see Fröhlich, J. (1 - 3) 425 - 433

Peyret, R., The Chebyshev multidomain approach to stiff problems in fluid mechanics (1 - 3) 129 - 145

Phillips, T.N., Spectral domain decomposition techniques for viscous incompressible flows (1 - 3) 389 - 395

Picone, J.M., see Dahlburg, R.B. (1 - 3) 409 - 416

Quarteroni, A., see Gastaldi, F. (1 - 3) 347 - 354

Randriamampianina, A., see Chaouche, A. (1 - 3) 237 - 244

Reddy, S.C. and L.N. Trefethen, Lax-stability of fully discrete spectral methods via stability regions and pseudo-eigenvalues (1 - 3) 147 - 164

Rønquist, E.M., see Ho, L.-W. (1 - 3) 65 - 90

Rønquist, E.M., see Maday, Y. (1 - 3) 91 - 115

Rosier, C., see Jauberteau, F. (1 - 3) 245 - 260

Sacchi Landriani, G., see Gastaldi, F. (1 - 3) 347 - 354

Sacchi, G., see Chinosi, C. (1 - 3) 327 - 336

Sanz-Serna, J.M., see De Frutos, J. (1 - 3) 417 - 423

Scapolla, T., see Chinosi, C. (1 - 3) 327 - 336

Sguazzero, P., M. Kindelan and A. Kamel, Dispersion-bounded numerical integration of the elastodynamic equations with cost-effective staggered schemes (1 - 3) 165 - 172

She, Z.-S., E. Jackson and S.A. Orszag, Vortex structure and dynamics in turbulence (1-3) 173-183

Shen, J., Numerical simulation of the regularized driven cavity flows at high Reynolds numbers (1-3) 273-280

Stephan, E.P., see Babuška, I. (1-3) 319-325

Suri, M., see Babuška, I. (1-3) 5-26

Szabo, B.A., The p - and $h\cdot p$ versions of the finite element method in solid mechanics (1-3) 185-195

Tadmor, E., Shock capturing by the spectral viscosity method (1-3) 197-208

Taylor, T.D., see Ku, H.C. (1-3) 381-388

Temam, R., see Jauberteau, F. (1-3) 245-260

Trefethen, L.N., see Reddy, S.C. (1-3) 147-164

Vandeven, H., On the eigenvalues of second-order spectral differentiation matrices (1-3) 313-318

Wasberg, C.E. and Ø. Andreassen, Pseudospectral methods with open boundary conditions for the study of atmospheric wave phenomena (1-3) 459-465

Weideman, J.A.C. and A. Cloot, Spectral methods and mappings for evolution equations on the infinite line (1-3) 467-481

Zang, T.A., Spectral methods for simulations of transition and turbulence (1-3) 209-221

SUBJECT INDEX OF VOLUME 80*

Boundary element methods

The $h-p$ version of the boundary element method with geometric mesh on polygonal domains, I. Babuška, B. Guo and E.P. Stephan

(1-3) 319-325

Cavitation flows

Numerical simulation of the regularized driven cavity flows at high Reynolds numbers, J. Shen

(1-3) 273-280

Collocation method

Chebyshev collocation solutions of flow problems, M.O. Deville

(1-3) 27-37

Spectral simulation of an unsteady compressible flow past a circular cylinder, W.-S. Don and D. Gottlieb

(1-3) 39-58

The Chebyshev multidomain approach to stiff problems in fluid mechanics, R. Peyret

(1-3) 129-145

Dispersion-bounded numerical integration of the elastodynamic equations with cost-effective staggered schemes, P. Sguazzer, M. Kindelan and A. Kamel

(1-3) 165-172

A collocation method based on the influence matrix technique for Navier-Stokes problems in annular domains, A. Chaouche, A. Randriamampianina and P. Bontoux

(1-3) 237-244

A three-dimensional pseudo-spectral algorithm for the computation of convection in a rotating annulus, P. Le Quéré and J. Pecheux

(1-3) 261-271

On the spectrum of the iteration operator associated to the finite element preconditioning of Chebyshev collocation calculations, P. Francken, M.O. Deville and E.H. Mund

(1-3) 295-304

Pseudospectral multi-domain method for incompressible viscous flow computation, A. Farcy and T. Alziary de Roquefort

(1-3) 337-346

Pseudospectral matrix element methods for flow in complex geometry, H.C. Ku, T.D. Taylor and R.S. Hirsh

(1-3) 381-388

A Hamiltonian explicit algorithm with spectral accuracy for the 'good' Boussinesq system, J. De Frutos, T. Ortega and J.M. Sanz-Serna

(1-3) 417-423

Calculations of non-Boussinesq convection by a pseudospectral method, J. Fröhlich and R. Peyret

(1-3) 425-433

* The issue number is given in front of the page numbers.

A semi-implicit collocation method: Application to two-dimensional compressible convection, S. Gauthier (1 - 3) 435 - 442

Pseudospectral methods on massively parallel computers, R.B. Pelz (1 - 3) 493 - 503

Coupled problems

Coupling of two-dimensional hyperbolic and elliptic equations, F. Gastaldi, A. Quarteroni and G. Sacchi Landriani (1 - 3) 347 - 354

Design of programs

Analysis and application of a parallel spectral element method for the solution of the Navier-Stokes equations, P.F. Fischer (1 - 3) 483 - 491

Pseudospectral methods on massively parallel computers, R.B. Pelz (1 - 3) 493 - 503

Finite difference methods

Propagation of error into regions of smoothness for non-linear approximations to hyperbolic equations, R. Donat and S. Osher (1 - 3) 59 - 64

Finite element and matrix methods

The p - and $h\cdot p$ version of the finite element method, An overview, I. Babuška and M. Suri (1 - 3) 5 - 26

Iterative solvers by substructuring for the p -version finite element method, J. Mandel (1 - 3) 117 - 128

The p - and $h\cdot p$ versions of the finite element method in solid mechanics, B.A. Szabo (1 - 3) 185 - 195

Fluid mechanics

The Chebyshev multidomain approach to stiff problems in fluid mechanics, R. Peyret (1 - 3) 129 - 145

Fourth order schemes for the heterogeneous acoustics equation, G. Cohen and P. Joly (1 - 3) 397 - 407

Pseudospectral simulation of compressible magnetohydrodynamic turbulence, R.B. Dahlburg and J.M. Picone (1 - 3) 409 - 416

A Hamiltonian explicit algorithm with spectral accuracy for the 'good' Boussinesq system, J. De Frutos, T. Ortega and J.M. Sanz-Serna (1 - 3) 417 - 423

Calculations of non-Boussinesq convection by a pseudospectral method, J. Frölich and R. Peyret (1 - 3) 425 - 433

A semi-implicit collocation method: Application to two-dimensional compressible convection, S. Gauthier (1 - 3) 435 - 442

Gas dynamics

Shock capturing by the spectral viscosity method, E. Tadmor (1-3) 197-208
 Pseudospectral simulation of compressible magnetohydrodynamic turbulence, R.B. Dahlburg and J.M. Picone (1-3) 409-416

General Rayleigh-Ritz and Galerkin techniques

A high-order Lagrangian-decoupling method for the incompressible Navier-Stokes equations, L.-W. Ho, Y. Maday, A.T. Patera and E.M. Rønquist (1-3) 65-90
 Optimal error analysis of spectral methods with emphasis on non-constant coefficients and deformed geometries, Y. Maday and E.M. Rønquist (1-3) 91-115
 Lax-stability of fully discrete spectral methods via stability regions and pseudo-eigenvalues, S.C. Reddy and L.N. Trefethen (1-3) 147-164
 Shock capturing by the spectral viscosity method, E. Tadmor (1-3) 197-208
 Spectral methods for simulations of transition and turbulence, T.A. Zang (1-3) 209-221
 A spectral method for time modulated Taylor-Couette flow, C.F. Barenghi (1-3) 223-227
 Spectral methods for the Stokes problem in stream-function formulation, C. Bernardi, G. Coppoletta, V. Girault and Y. Maday (1-3) 229-236
 A nonlinear Galerkin method for the Navier-Stokes equations, F. Jauberteau, C. Rosier and R. Temam (1-3) 245-260
 The $h-p$ version of the boundary element method with geometric mesh on polygonal domains, I. Babuška, B. Guo and E.P. Stephan (1-3) 319-325
 A hierachic family of conforming finite elements for the solution of plate bending problems, C. Chinosi, G. Sacchi and T. Scapolla (1-3) 327-336
 Pseudospectral multi-domain method for incompressible viscous flow computation, A. Farcy and T. Alziary de Roquefort (1-3) 337-346
 Coupling of two-dimensional hyperbolic and elliptic equations, F. Gastaldi, A. Quarteroni and G. Sacchi Landriani (1-3) 347-354
 A Legendre spectral element method for simulation of unsteady incompressible viscous free-surface flows, L.-W. Ho and A.T. Patera (1-3) 355-366
 Spectral element-Fourier methods for incompressible turbulent flows, G.E. Karniadakis (1-3) 367-380
 Pseudospectral matrix element methods for flow in complex geometry, H.C. Ku, T.D. Taylor and R.S. Hirsh (1-3) 381-388
 Spectral domain decomposition techniques for viscous incompressible flows, T.N. Phillips (1-3) 389-395
 Laguerre spectral approximation of elliptic problems in exterior domains, O. Coulaud, D. Funaro and O. Kavian (1-3) 451-458
 Analysis and application of a parallel spectral element method for the solution of the Navier-Stokes equations, P.F. Fischer (1-3) 483-491

Incompressible and near incompressible media

A high-order Lagrangian-decoupling method for the incompressible Navier–Stokes equations, L.-W. Ho, Y. Maday, A.T. Patera and E.M. Rønquist (1–3) 59–64

Vortex structure and dynamics in turbulence, Z.-S. She, E. Jackson and S.A. Orszag (1–3) 173–183

A spectral method for time modulated Taylor–Couette flow, C.F. Barenghi (1–3) 223–227

Spectral methods for the Stokes problem in stream-function formulation, C. Bernardi, G. Coppoletta, V. Girault and Y. Maday (1–3) 229–236

A collocation method based on the influence matrix technique for Navier–Stokes problems in annular domains, A. Chaouche, A. Randriamampianina and P. Bontoux (1–3) 237–244

A nonlinear Galerkin method for the Navier–Stokes equations, F. Jauberteau, C. Rosier and R. Temam (1–3) 245–260

A three-dimensional pseudo-spectral algorithm for the computation of convection in a rotating annulus, P. Le Quéré and J. Pecheux (1–3) 261–271

Numerical simulation of the regularized driven cavity flows at high Reynolds numbers, J. Shen (1–3) 273–280

Spectral element–Fourier methods for incompressible turbulent flows, G.E. Karniadakis (1–3) 367–380

Numerical solution procedures

Algebraic spectral multigrid methods, W. Heinrichs (1–3) 281–286

Theoretical analysis of some spectral multigrid methods, R. Muñoz (1–3) 287–294

On the spectrum of the iteration operator associated to the finite element preconditioning of Chebyshev collocation calculations, P. Francken, M.O. Deville and E.H. Mund (1–3) 295–304

Iterative methods with spectral preconditioning for elliptic equations, H. Guillard and J.A. Desideri (1–3) 305–312

On the eigenvalues of second-order spectral differentiation matrices, H. Vandeven (1–3) 313–318

Shells and plates

A hierachic family of conforming finite elements for the solution of plate bending problems, C. Chinosi, G. Sacchi and T. Scapolla (1–3) 327–336

Solutions of ordinary and partial differential equations

Optimal error analysis of spectral methods with emphasis on non-constant coefficients and deformed geometries, Y. Maday and E.M. Rønquist (1–3) 91–115

Lax-stability of fully discrete spectral methods via stability regions and pseudo-eigenvalues, S.C. Reddy and L.N. Trefethen (1–3) 147–164

On the eigenvalues of second-order spectral differentiation matrices, H. Vandeven	(1-3) 313-318
Truncation versus mapping in the spectral approximation to the Korteweg-De Vries equation, N. Bressan and D. Pavoni	(1-3) 443-450
Laguerre spectral approximation of elliptic problems in exterior domains, O. Coulaud, D. Funaro and O. Kavian	(1-3) 451-458
Pseudospectral methods with open boundary conditions for the study of atmospheric wave phenomena, C.E. Wasberg and Ø. Andreassan	(1-3) 459-465
Spectral methods and mappings for evolution equations on the infinite line, J.A.C. Weideman and A. Cloot	(1-3) 467-481
<i>Structural mechanics</i>	
The p - and $h-p$ version of the finite element method, An overview, I. Babuška and M. Suri	(1-3) 5-26
The p - and $h-p$ versions of the finite element model in solid mechanics, B.A. Szabo	(1-3) 185-195
<i>Systems of linear and nonlinear simultaneous equations</i>	
Iterative solvers by substructuring for the p -version finite element method, J. Mandel	(1-3) 117-128
Algebraic spectral multigrid methods, W. Heinrichs	(1-3) 281-286
Theoretical analysis of some spectral multigrid methods, R. Muñoz	(1-3) 287-294
Iterative methods with spectral preconditioning for elliptic equations, H. Guillard and J.A. Desideri	(1-3) 305-312
<i>Thermal effects and thermodynamics</i>	
Chebyshev collocation solutions of flow problems, M.O. Deville	(1-3) 27-37
<i>Turbulence</i>	
Vortex structure and dynamics in turbulence, Z.-S. She, E. Jackson and S.A. Orszag	(1-3) 173-183
Spectral methods for simulations of transition and turbulence, T.A. Zang	(1-3) 209-221
<i>Viscous flow</i>	
Spectral simulation of an unsteady compressible flow past a circular cylinder, W.-S. Don and D. Gottlieb	(1-3) 39-58
A Legendre spectral element method for simulation of unsteady incompressible viscous free-surface flows, L.-W. Ho and A.T. Patera	(1-3) 355-366
Spectral domain decomposition techniques for viscous incompressible flows, T.N. Phillips	(1-3) 389-395

Wave motion

Propagation of error into regions of smoothness for non-linear approximations to hyperbolic equations, R. Donat and S. Osher (1-3) 59- 64

Dispersion-bounded numerical integration of the elastodynamic equations with cost-effective staggered schemes, P. Sguazzer, M. Kindelan and A. Kamel (1-3) 165-172

Fourth order schemes for the heterogeneous acoustics equation, G. Cohen and P. Joly (1-3) 397-407

Truncation versus mapping in the spectral approximation to the Korteweg-De Vries equation, N. Bressan and D. Pavoni (1-3) 443-450

Pseudospectral methods with open boundary conditions for the study of atmospheric wave phenomena, C.E. Wasberg and Ø. Andreassen (1-3) 459-465

Spectral methods and mappings for evolution equations on the infinite line, J.A.C. Weideman and A. Cloot (1-3) 467-481

